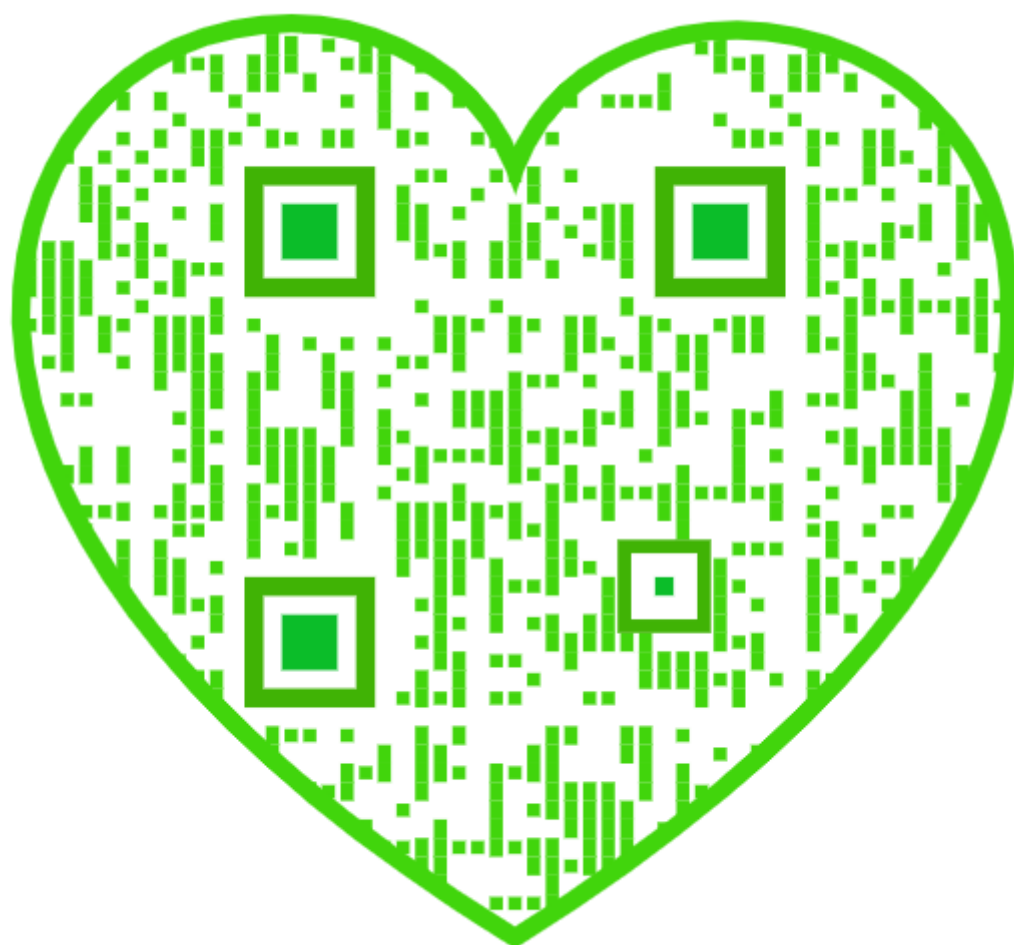


Master in Artificial Intelligence



Problem Definition III





Purpose

The purpose of the section is to help you learn how to define problems to become a Successful Artificial Intelligence (AI) Engineer

At the end of this lecture, you will learn the following

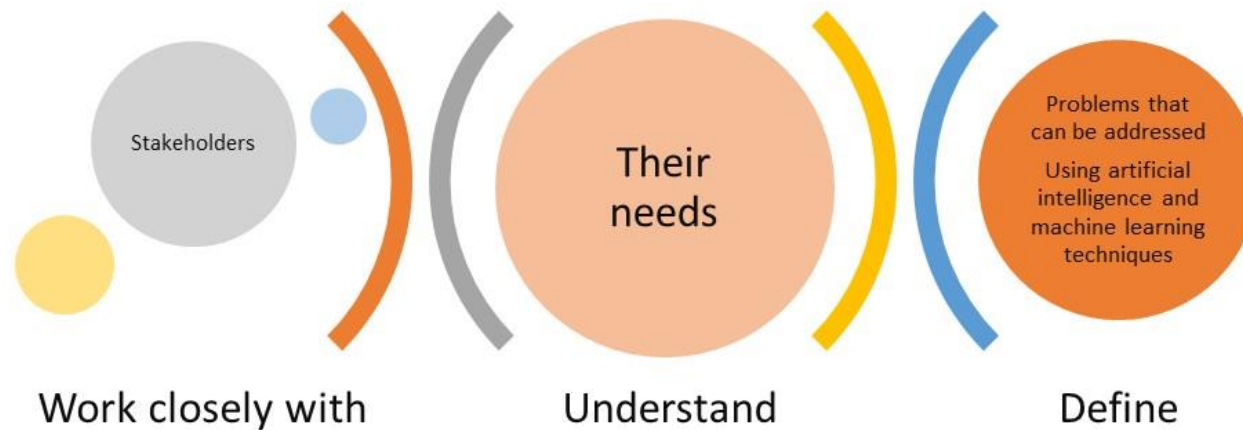
- **An example of understanding stakeholders' needs and define problems that can be addressed using artificial intelligence and machine learning technique**



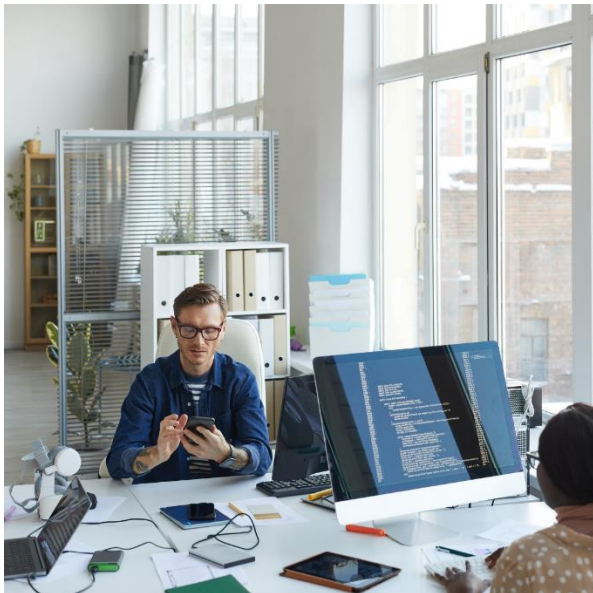
An example of understanding stakeholders' needs and define problems

Problem Definition

Example: Improving Patient Diagnostics in Radiology



Identified Stakeholders



Enrichmentors

Growing through Excellence over 40 years to become Best in Management



Engaged Stakeholders



Understood

- Their daily workflow
- challenges in diagnosing medical images
- Areas where AI could assist



Discussed

- Patient care priorities
- Resource constraints
- Potential benefits of AI solutions



Assess

- Existing infrastructure
- Data availability
- Integration requirements



Gather feedback

- Experiences with radiology services
- Expectations for improved diagnostics



Listen Actively



Expressed

- Challenges in detecting subtle abnormalities in medical images
- Time constraints
- Need for faster and more accurate diagnoses



Emphasized importance of

- Reducing diagnostic errors
- Improving patient outcomes
- Optimizing resource utilization



Expressed concerns about

- Waiting times for diagnostic results
- Accuracy of diagnoses,
- Access to specialized care



Asked Probing Questions

What specific types of abnormalities are challenging to detect?

How much time do radiologists spend on average interpreting medical images?

What are the consequences of delayed or inaccurate diagnoses for patient care?

What are regulatory or compliance requirements that need to be considered?



Conduct Stakeholder Interviews



Understood their

- Diagnostic processes
- Decision-making criteria
- Areas where AI assistance could be beneficial



Gain insights into

- Patient care priorities
- Financial considerations
- Performance metrics related to radiology services

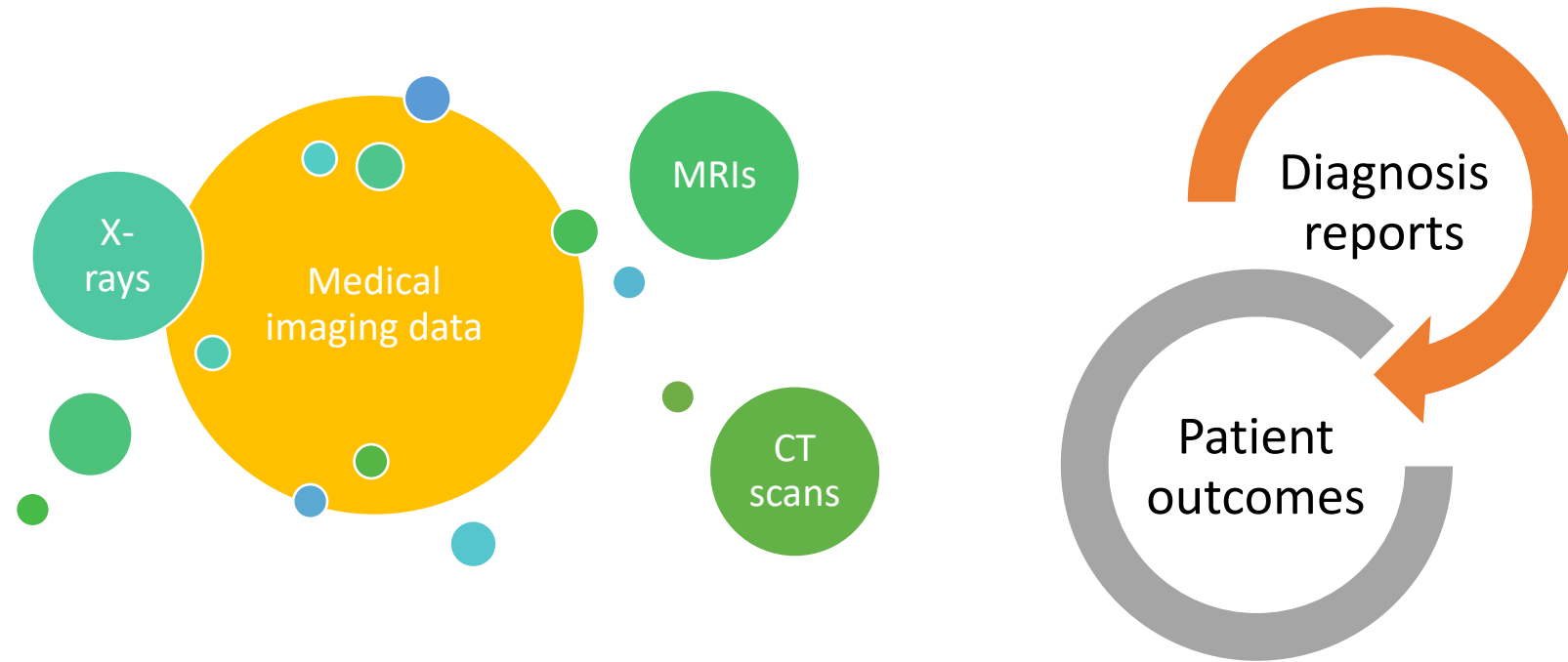


Understood their

- Preferences and concerns regarding diagnostic imaging.



Collected Data



Collected Data



Historical data

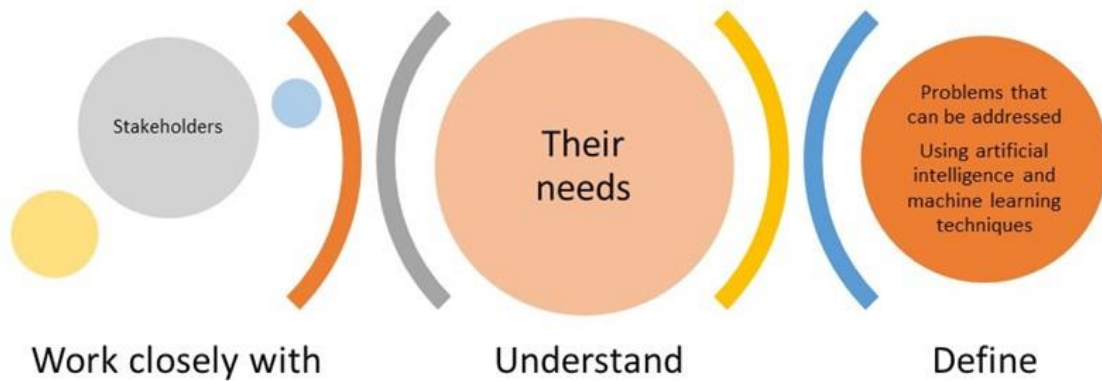
Patterns, trends,
and common
challenges



What is next?

An example of understanding stakeholders' needs and define problems

Problem Definition



Master in Artificial Intelligence



Problem Definition III

